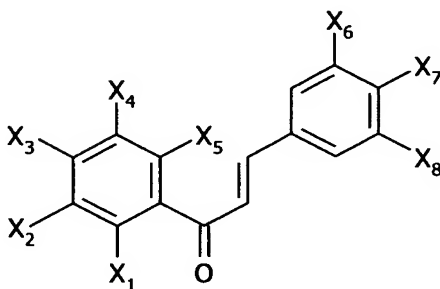


CLAIMS

1. Compounds derived from substituted 1,3-diphenylprop-2-en-1-one represented by general formula (I) below :



(I)

in which :

X_7 represents a group corresponding to the following formula: G_7-R_7 in which G_7 is an oxygen or sulfur atom and R_7 is an alkyl chain substituted by a substituent from group 1 or a substituent from group 2, optionally R_7 can also be substituted by an aryl group,

the substituents from group 1 are selected in the group consisting of carboxy groups having the formula: $-COOR_a$, carbamoyl groups having the formula : $-CONR_bR_c$ or the tetrazolyl group,

the substituents from group 2 are selected in the group consisting of sulfonic acid ($-SO_3H$) and sulfonamide groups having the formula : $-SO_2NR_bR_c$,

with R_a , R_b and R_c , which are the same or different, representing a hydrogen atom or an alkyl group substituted or not,

the X_i groups with $i = 1, 2, 3, 4$ or 5 , which are the same or different, represent a halogen atom or a thionitroso group or respectively correspond to the formula $(G_i-R_i)_n-G'_i-R'_i$ in which :

- n can have the values 0 or 1
- G_i and G'_i , which are the same or different, represent a single bond, an oxygen atom or a sulfur atom,

- R_i and R'_i , which are the same or different, represent an alkyl, alkenyl, aryl or heterocycle group,
- R'_i can also represent a hydrogen atom,

the X_i groups with $i = 6$ or $i = 8$, which are the same or different, represent a halogen atom or correspond to the formula $G'_i-R'_i$, G'_i and R'_i being such as defined hereinabove, X_6 and X_8 not simultaneously representing a hydrogen atom,

X_i with $i = 1, 2, 3, 4, 5, 6$ or 8 not representing a heterocycle bound directly to the aromatic ring of the 1,3-diphenyl prop-2-en-1-one,

with the exception of compounds represented by formula (I) in which simultaneously :

- one of the groups X_1, X_2, X_3, X_4 or X_5 is a hydroxyl group,
- G_7 is an oxygen atom,
- and one of the groups X_6 or X_8 is a hydrogen atom or a halogen or a hydroxyl or alkyloxy group,

with the exception of compounds represented by formula (I) in which simultaneously :

- the X_1, X_2 and X_4 groups simultaneously represent a hydrogen atom,
- the X_6 and X_8 groups represent $G'_iR'_i$,
- the X_5 group represents a thionitroso group or a $G'_iR'_i$ group,
- the X_3 group represents a halogen or a $G'_iR'_i$ group,

in which G'_i represents an oxygen atom, a sulfur atom or a single bond and R'_i represents a saturated, linear, branched or cyclic alkyl group, halogenated or not, or a hydrogen atom.

2. Compounds according to claim 1, characterized in that X_1 and X_5 are hydrogen atoms.

3. Compounds according to either one of claims 1 or 2, characterized in that X_2 and X_4 are alkyl groups.

4. Compounds according to claim 1, characterized in that X_1 , X_3 and X_4 are alkyl groups.

5. Compounds according to claim 1, characterized in that X_1 , X_2 , X_4 and X_5 are hydrogen atoms.

6. Compounds according to any one of the previous claims, characterized in that X_6 and X_8 are alkyl groups.

7. Compounds according to the previous claim, characterized in that X_1 and X_5 are hydrogen atoms.

8. Compounds according to the previous claim, characterized in that X_2 and X_4 are alkyl groups.

9. Compounds according to claim 1, characterized in that X_1 , X_3 , X_4 , X_6 and X_8 are alkyl groups.

10. Compounds according to claim 1, characterized in that X_6 and X_8 are alkyl groups and X_1 , X_2 , X_4 and X_5 are hydrogen atoms.

11. Compounds according to any one of the previous claims, characterized in that X_3 represents a halogen atom or a thionitroso group or corresponds to the formula $(G_i-R_i)_n-G'_i-R'_i$ such as defined in claim 1, in which G'_i represents an oxygen atom or a sulfur atom.

12. Compounds according to any one of the previous claims, characterized in that at least one of the groups G_i or G'_i represents a sulfur atom with i taking the values 1, 2, 3, 4, 5, 6, 7 or 8.

13. Compounds according to any one of the previous claims, characterized in that they are selected in the group consisting of :

1-(4-((R,S)-5-[1,2]dithiolan-3-ylpentyloxy)-3,5-dimethylphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Mercapto-3,5-dimethylphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

5 1-(4-Cyclohexylethylthio-3,5-dimethylphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,5-Dihydroxy-3,4,6-trimethylphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

10 1-(2,5-Dimethoxy-3,4,6-trimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,5-Dihydroxyphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,5-Dimethoxyphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

15 1-(4-Phenylethyloxyphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-(Morpholin-4-ylethyloxy)phenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

20 1-(4-(Pentylthioethyloxy)phenyl)-3-(4-tert-butyloxycarbonyldimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-(Pentylthioethyloxy)phenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Hydroxy-3,5-dimethylphenyl)-3-(4-tert-butyloxycarbonyldimethylmethyloxy-3,5-dimethylphenyl)prop-2-ene-1-one;

25 1-(4-Hydroxy-3,5-dimethylphenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-ene-1-one;

1-(4-((R,S)-5-[1,2]dithiolan-3-ylpentyloxy)phenyl)-3-(4-tert-butyloxycarbonyldimethyl methyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

30 1-(4-((R,S)-5-[1,2]dithiolan-3-ylpentyloxy)phenyl)-3-(4-carboxydimethylmethyloxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methylthiophenyl)-3-(4-tert-butyloxycarbonyldimethylmethyloxy-3,5-dibromophenyl)prop-2-ene-1-one;

1-(4-Methylthiophenyl)-3-(4-carboxydimethylmethoxy-3,5-dibromophenyl)prop-2-ene-1-one;

1-(4-Cyclohexylethyloxyphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

5 1-(4-Cyclohexylethyloxyphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methylthio-3,5-dimethylphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

10 1-(4-Methylthio-3,5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Propyloxy-3,5-dimethylphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Propyloxy-3,5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

15 1-(4-Methoxy-3,5-dimethylphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3,5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

20 1-(4-Hexyloxy-3,5-dimethylphenyl)-3-(4-tert-butyloxycarbonyldimethyl methoxy - 3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Hexyloxy-3,5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Cyclohexylethyloxy-3, 5-dimethylphenyl)-3-(4-tert-butyloxycarbonyldimethyl methoxy-3,5-dimethylphenyl)prop-2-en-1-one;

25 1-(4-Cyclohexylethyloxy-3, 5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Cyclohexylthioethyloxyphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

30 1-(4-Cyclohexylthioethyloxyphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,4,5-Trimethylphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,4,5-Trimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Cyclohexylthioethoxy-3,5-dimethylphenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

5 1-(4-Cyclohexylthioethoxy-3,5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methylthiophenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3-fluorophenyl)prop-2-en-1-one;

10 1-(4-Methylthiophenyl)-3-(4-carboxydimethylmethoxy-3-fluorophenyl)prop-2-en-1-one;

1-(2,3,4,5,6-Pentamethylphenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,3,4,5,6-Pentamethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

15 1-(4-Phenylloxyphenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Phenylloxyphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

20 1-(4-Methoxy-3-fluorophenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3-fluorophenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3-methylphenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

25 1-(4-Methoxy-3-methylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Hexylthio-3,5-dimethylphenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

30 1-(4-Hexylthio-3,5-dimethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,5-Dimethoxyphenyl)-3-(4-tert-butylloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,5-Dimethoxyphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(3,5-Dimethyl-4-(morpholin-4-ylethyloxy)phenyl)-3-(4-ethyloxycarbonyl dimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one hydrochloride;

1-(3,5-Dimethyl-4-(morpholin-4-ylethyloxy)phenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

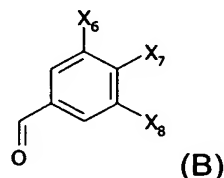
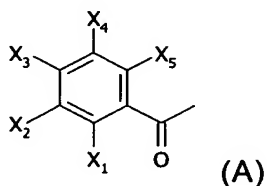
1-(4-Bromophenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-difluorophenyl)prop-2-en-1-one;

1-(4-Bromophenyl)-3-(4-carboxydimethylmethoxy-3,5-difluorophenyl)prop-2-en-1-one;

1-(4-Methoxy-3-trifluoromethylphenyl)-3-(4-tert-butyloxycarbonyldimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3-trifluoromethylphenyl)-3-(4-carboxydimethylmethoxy-3,5-dimethylphenyl)prop-2-en-1-one.

14. Method for preparing compounds represented by formula (I) such as defined in any one of the previous claims, characterized in that it comprises contacting in basic medium or in acidic medium at least one compound corresponding to formula (A) with at least one compound corresponding to formula (B), formulas (A) and (B) being :



formulas in which X_1 , X_2 , X_3 , X_4 , X_5 , X_6 , X_7 and X_8 are defined as in any one of the previous claims, X_7 can also represent a hydroxyl or thiol group.

15. Intermediate compounds, characterized in that they are selected in the group consisting of :

1-(4-(Pentylthioethoxy)phenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-((R,S)-5-[1,2]dithiolan-3-ylpentoxy)phenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methylthiophenyl)-3-(4-hydroxy-3,5-dibromophenyl)prop-2-en-1-one;

1-(4-(Cyclohexylethyloxy)phenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methylthio-3,5-dimethylphenylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3,5-dimethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-(Cyclohexylethyloxy)-3,5-dimethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-(Cyclohexylthioethyloxy)phenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,4,5-Trimethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-(Cyclohexylthioethyloxy)-3,5-dimethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methylthiophenyl)-3-(4-hydroxy-3-fluorophenyl)prop-2-en-1-one;

1-(2,3,4,5,6-Pentamethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Phenoxyphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3-fluorophenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Methoxy-3-methylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Hexylthio-3,5-dimethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(2,5-Dimethoxyphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one;

1-(4-Bromophenyl)-3-(4-hydroxy-3,5-difluorophenyl)prop-2-en-1-one;

1-(4-Methoxy-3-trifluoromethylphenyl)-3-(4-hydroxy-3,5-dimethylphenyl)prop-2-en-1-one.

16. Compounds according to any one of claims 1 to 13, as medicaments.

17. Pharmaceutical or cosmetic composition comprising, in a pharmaceutically acceptable support, at least one compound represented by general formula (I)

such as defined in any one of claims 1 to 13, optionally in association with another therapeutic and/or cosmetic active agent.

- 5 18. Pharmaceutical or cosmetic composition according to claim 17, intended for the treatment of cardiovascular diseases, dyslipidemias, pathologies associated with syndrome X, diabetes, obesity, hypertension, inflammatory diseases, dermatological diseases (psoriasis, atopic dermatitis, acne, etc.), asthma, disorders related to oxidative stress or for the treatment of ageing in general, in particular skin ageing.